36 AMENDED CLAIMS

Received by the International Bureau on 26 September 2005 (26.09.05). Claims 1 and 6 replaced by amended claims 1 and 6. Claims 2-5 and 7-15 are unchanged (5 pages)

We claim:

1. A compound of formula (I)

$$(CH_2)_j$$
 $(CH_2)_j$
 $(CH_2)_k$
 $(CH_2)_k$
 $(CH_2)_k$

p is 0, 1, or 2;

y is 0, 1, or 2; and z is 0, 1, or 2;

j and k are each independently 0, 1, or 2 provided that j and k are not simultaneously equal to 0;

X₁ and X₂ are each independently is CH, or N;

R1 and R2 are independently selected from hydrogen, C1-C8 alkyl, C2-C8 alkenyl, C2-C8 alkynyl, phenyl, C_1 - C_{10} alkylaryl, SO_2R^8 , $(CH_2)_nC(O)NR^8R^8$, SO_2C_1 - C_{10} alkylaryl, SO₂C₁-C₈ alkylheterocyclic, C₄-C₁₀ alkylcycloalkane, (CH₂)_nC(O)OR⁸, and (CH₂)_nC(O)R⁸; wherein each of the alkyl, alkenyl, and aryl groups are optionally substituted with one to two groups independently selected from C1-C8 alkyl, C2-C8 alkenyl, phenyl, C3-C8 cycloalkyl, C1-C8 alkylaryl, and C(O)C1-C8 alkyl; and wherein R1 and R² may optionally combine with each other to form a 4, 5, 6, or 7-membered nitrogen-containing heterocycle which nitrogen -containing heterocycle may further have substituents selected from the group consisting of oxo, amino, C1-C8 alkyl, C2-C8 alkenyl, C₂-C₈ alkynyl, phenyl, C₁-C₃ alkylaryl, C(O)C₁-C₈ alkyl, CO(O)C₁-C₈ alkyl, halo, C₁-C₃ haloalkyl; and wherein when R1 is hydrogen R2 is other than hydrogen; R³ and R³ are each independently selected from hydrogen, C₁-C₈ alkyl, C₂-C₈ alkenyl, C2-C8 alkynyl, phenyl, aryl, C1-C8 alkylcycloalkyl, and C1-C8 alkylaryl; R⁴ and R⁵ are each independently selected from hydrogen, C₁-C₈ alkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, C₁-C₈ alkoxy, halo, C₁-C₈ haloalkyl, phenyl, aryl, C₁-C₈ alkylaryl, $(CH_2)_mNSO_2C_1$ - C_8 alkyl, $(CH_2)_mNSO_2$ phenyl, $(CH_2)_mNSO_2$ aryl, $-C(O)C_1$ - C_8 alkyl, and $-C(O)C_1$ - C_8

C(O)OC₁-C₈ alkyl; wherein each R⁴ and R⁵ is attached to its respective ring only at carbon atoms; wherein m is 1 or 2; and n is 0, 1, 2, or 3;

R⁶ and R⁷ are each independently selected from hydrogen, C₁-C₈ alkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, C(O)C₁-C₈ alkyl, SO₂C₁-C₈ alkyl, SO₂C₁-C₈ alkylaryl, SO₂C₁-C₈ alkylaryl, C₁-C₈ alkylaryl, C₂-C₇ cycloalkane, C₁-C₆ alkylcycloalkane, (CH₂)_mC(O)OR⁸, (CH₂)_mC(O)R⁸, (CH₂)_mC(O)NR⁸R⁸, and (CH₂)_mNSO₂R⁸; wherein each of the alkyl, alkenyl, and aryl groups are optionally substituted with one to two groups independently selected from C₁-C₈ alkyl, C₂-C₈ alkenyl, phenyl, and C₁-C₈ alkylaryl; and wherein R⁶ and R⁷ may independently combine with each other, and with the nitrogen atom to which they are attached to form a 4, 5, 6, or 7-membered nitrogen containing heterocycle which nitrogen containing heterocycle may optionally have substituents selected from the group consisting of oxo, amino, C₁-C₈ alkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, phenyl, and C₁-C₈ alkylaryl;

R⁸ is independently selected from hydrogen, C₁-C₈ alkyl, C₂-C₈ alkenyl, phenyl, benzyl, and C₅-C₈ alkylaryl; or a pharmaceutically acceptable salt, solvate, prodrug, enantiomer, racemate, diastereomer, or mixture of diastereomers thereof; provided that said compound of Formula (I) is not 1-[4-(4-carbamoylbenzyloxy)-phenyl]-2-(3,3-diphenylpropylamino)-propane maleate.

- 2. The compound according to claim 1 wherein the X_1 is selected CH.
- 3. A compound according to Claim 1 wherein X_1 is N.
- 4. A compound according to Claim 1 wherein y is 0 or 1, and R⁴ is independently selected from the group consisting of fluoro, chloro, bromo, methoxy, ethoxy, methyl, ethyl, isopropyl, trifluoromethyl, phenyl, benzyl and ethoxy.
- 5. A compound according to Claim 1 wherein z is 0 or 1, and R⁵ is independently selected from the group consisting of fluoro, chloro, bromo, methoxy, ethoxy, methyl, ethyl, isopropyl, trifluoromethyl, phenyl, and benzyl.

6. A compound according to Claim 1 wherein R¹ and R² are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, 2-methylpentyl, t-butyl, cyclopropyl, phenyl,

$$(CH_{g})_{n} \times (CH_{g})_{n} \times (CH_$$

and wherein when R1 is hydrogen R2 is other than hydrogen.

- 7. The compound according to Claim 1 wherein R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, and phenyl.
 - A compound selected from the group consisting of:
- 3-{4-[(3-Methyl-butylamino)-methyl]-phenoxymethyl}-benzamide,
- 4-{4-[(3-Methyl-butylamino)-methyl]-phenoxymethyl}-benzamide,
- 4-{3-[(3-Methyl-butylamino)-methyl]-benzyloxy}-benzamide,
- 4-{4-[(3-Methyl-butylamino)-methyl]-benzyloxy}-benzamide,
- 4-(2-{4-[(3-Methyl-butylamino)-methyl]-phenoxy}-ethyl)-benzamide,
- 2-{4-[(3-Methyl-butylamino)-methyl]-phenoxymethyl}-benzamide,
- 3-(3-[(3-Methyl-butylamino)-methyl]-phenoxymethyl]-benzamide,
- 3-(4-{[(Methyl-(3-methyl-butyl)-amino]-methyl]-phenoxymethyl)-benzamide,
- 3-{4-[(3,3-Dimethyl-butylamino)-methyl]-phenoxymethyl}-benzamide,
- 3-(4-{[2-(Tetrahydro-pyran-4-yl)-ethylamino]-methyl}-phenoxymethyl)-benzamide,
- 3-(4-{[2-(4-Fluoro-phenyl)-ethylamino]-methyl}-phenoxymethyl)-benzamide,

- 3-{3-[(3-Methyl-butylamino)-methyl]-benzyloxy}-benzamide,
- 3-{4-[(3-Methyl-butylamino)-methyl]-bcnzyloxy}-benzamide,
- 4-{3-[2-(3-Methyl-butylamino)-ethyl]-benzyloxy}-benzamide,
- 3-[4-(2-Benzylamino-ethyl)-Phenoxymethyl]-benzamide, or a pharmaceutically acceptable salt, solvate, enantiomer, diastereomer and diastereomeric mixture thereof.
- 9. A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 in association with a carrier, diluent and/or excipient.
- 10. A method for blocking a mu, kappa, delta or receptor combination (heterodimer) thereof in mammals comprising administering to a mammal requiring blocking of a mu, kappa, delta or receptor combination (heterodimer) thereof, a receptor blocking dose of a compound of formula I, or a pharmaceutically acceptable salt, enantiomer, racemate, mixture of diastereomers, or solvate thereof.
- 11. A method of treating or preventing obesity and Related Diseases comprising administering a therapeutically effective amount of a compound of Claim 1.
- 12. A method according to Claim 11 wherein the Related Diseases is selected from the group consisting of diabetes, diabetic complications, diabetic retinopathy, atherosclerosis, hyperlipidemia, hypertriglycemia, hyperglycemia, and hyperlipoproteinemia.
- 13. A method of treating and/or preventing diseases related to obesity including irritable bowel syndrome, nausea, vomiting, depression, smoking and alcohol addiction, sexual dysfunction, substance abuse, drug overdose, addictive behavior disorders, compulsive behaviors, and stroke comprising administering a therapeutically effective amount of a compound of formula I.
- 14. A method of suppressing appetite in a patient in need thereof, comprising administering a therapeutically effective amount of a compound of formula I.

15. Use of a compound of formula I in the manufacture of a medicament for the treatment and/or amelioration of the symptoms associated with obesity and Related Diseases comprising administering a therapeutically effective amount of a compound of formula I to a patient in need thereof.